

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Massoud Kayvanjah

GENERAL INFORMATION:

Name:	Trigen-Cinergy Solution of Silver Grove, LLC.
Address:	139 Fourth Street, Cincinnati, OH 45202
Date application received:	4/20/05
SIC/Source description:	4939
Source ID #:	21-037-00091
Source A.I. #:	37590
Activity #:	APE20050002
Permit number:	V-05-062

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b) <u>MISCELLANEOUS:</u>	
<input type="checkbox"/> Acid rain source		
<input type="checkbox"/> Source subject to 112(r)		
<input type="checkbox"/> Source applied for federally enforceable emissions cap		
<input type="checkbox"/> Source provided terms for alternative operating scenarios		
<input type="checkbox"/> Source subject to a MACT standard		
<input type="checkbox"/> Source requested case-by-case 112(g) or (j) determination		
<input type="checkbox"/> Application proposes new control technology		
<input checked="" type="checkbox"/> Certified by responsible official		
<input type="checkbox"/> Diagrams or drawings included		
<input type="checkbox"/> Confidential business information (CBI) submitted in application		
<input type="checkbox"/> Pollution Prevention Measures		
<input checked="" type="checkbox"/> Area is non-attainment (for Ozone and PM <sub>2.5</sub> ):		

**EMISSIONS SUMMARY:**

Pollutant	Actual (tpy)	Potential (tpy)
PM/PM <sub>10</sub>	3.2	8.8
SO <sub>2</sub>	0.73	3.9
NO <sub>x</sub>	17	105
CO	33	175
VOC	16.5	87.6
P less than Single HAP (Formaldehyde)	0.2	0.81
Source wide HAPs	0.25	1.12

**SOURCE DESCRIPTION:**

The Trigen-Cinergy Solutions of Silver Grove, LLC., application for Title V permit renewal was received on April 20, 2005. The plant is a peak hour power generation station with four natural gas fired turbines rated at 65 mmBtu/hr input capacity (5MW output) each. One of the four turbines was installed in 2001, while authorized construction for other gas turbines has been extended, based on the second extension granted by the Division on November 9, 2004. The facility is classified as a Title V major source of air pollution based on the potential to emit more than 100 tons per year (tpy) of carbon monoxide (CO), and nitrogen oxides (NO<sub>x</sub>).

**EMISSIONS AND OPERATING CAPS DESCRIPTIONS:**

- a) Pursuant to 40 CFR 60.332, applicable to Combustion Turbine unit #1, nitrogen oxides emission level in the exhaust gas shall not exceed 150 ppm by volume at 15 percent oxygen on a dry basis, and based on a three-hour rolling average. The ppm level of nitrogen oxides shall be demonstrated by stack test.
- b) Pursuant to 40 CFR 60.333, applicable to Combustion Turbine unit #1, the permittee shall not cause any emissions containing sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen on a dry basis or burn any fuel which contains sulfur in excess of 0.8 percent by weight (8000 PPMW).
- c) Pursuant to 40 CFR 60, Subpart KKKK, applicable to new turbines units #2, 3, and 4, nitrogen oxides emission level in the exhaust gas shall not exceed 25 ppm by volume at 15% oxygen, or 150 ng/J of useful output (1.2 lb/MWh). Sulfur dioxide emissions limit shall not exceed 110 ng/J (0.90 lb/MWh) of gross energy output, or the fuel sulfur content shall not exceed 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/mmBtu) heat input.

**OPERATIONAL FLEXIBILITY: NONE**